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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/649,690      | 08/28/2003  | Ryooji Ishida        | 648.43082X00        | 6755             |

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EXAMINER

GATES, ERIC ANDREW

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3722

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/649,690 | <b>Applicant(s)</b><br>ISHIDA ET AL. |  |
|                              | <b>Examiner</b><br>Eric A. Gates     | <b>Art Unit</b><br>3722              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 6-8 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/19/2004</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-5, drawn to a method for removing chips from a safety cover when forming a groove, classified in class 409, subclass 137.
- II. Claims 6-8, drawn to a safety cover for covering a side cutter, classified in class 409, subclass 134.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice another and materially different process in which said chips are accumulated in the safety cover and not discharged.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Applicant's attorney, Mr. William Solomon, on 25 July 2005, a provisional election was made with provisional traverse to prosecute the invention drawn to a method for removing chips from a safety cover when forming a groove, as specified in claims 1-5. Affirmation of this election must be made by

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applicant in replying to this Office Action. Claims 6-8 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Information Disclosure Statement***

5. The information disclosure statement (IDS) is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Priority***

6. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification***

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 3 contains subject matter that was not described in the specification.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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8. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 3 calls for "a rubber cover disposed at a progressing-side opening of said safety cover." The specification does not describe this feature as being part of the Applicant's invention, and as such would not enable someone skilled in the art to make and use the claimed safety cover.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 calls for "a rubber cover disposed at a progressing-side opening of said safety cover." It is not possible to determine from this claim or the specification what is meant by a "progressing-side opening", as this feature is not defined in the specification, and it is not clear what is being claimed.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Lorber (U.S. Patent Publication 2001/0026741 A1).

11. Per claim 1, Lorber discloses a method for removing chips generated when grooving an object workpiece using a side cutter 10, wherein said chips are discharged without being accumulated in a safety cover 36 that covers a periphery of said side cutter 10 due to the shape of said safety cover 36.

12. Per claim 2, Lorber discloses the chips to be circulated and discharged from said safety cover 36 by blowing air using a blast nozzle 32 to said side cutter along a rotating direction of said side cutter 10.

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorber. Lorber discloses the method as described in paragraph 10 above, and additionally discloses brushes 38 made of a flexible design disposed at the four side openings of said safety cover 36, used in combination with the blast nozzle 32 for the purpose of preventing chips from adhering to and inhibiting recognition of the profile sensor 30.

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Lorber does not distinctly teach the brushes 38 to be made of rubber; however, it would have been obvious to one having ordinary skill in the art to have chosen rubber or a similar flexible material to make the brushes in order to have obtained a cover which would prevent chips from adhering to and inhibiting recognition of the profile sensor while remaining flexible to avoid damaging the workpiece.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorber in view of Ezumi (EP 1 224 998 A2). Lorber discloses the method substantially as claimed, except Lorber does not disclose air blown toward the groove so as to remove the chips from said groove after the grooving. Ezumi teaches compressed air blown toward the cut groove so as to remove the chips from said groove after the grooving for the purpose of facilitating insertion of a filling material in an after process (paragraph 0016, page 3). Therefore it would have been obvious to one having ordinary skill in the art to have combined the method of Lorber with the compressed air of Ezumi in order to remove any chips remaining in the cut groove prior to friction stir welding.

16. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorber in view of Royle (U.S. Patent 1,635,769). Lorber discloses the method substantially as claimed, except Lorber does not disclose the chips to be removed by disposing a blade on a shaft to which the side cutter is mounted. Royle teaches mounting a blade 1 on a rotating shaft to which a router head is mounted for the purpose of creating an chip removing air flow using the rotation of the router shaft. Therefore it would have been obvious to one having ordinary skill in the art to have combined the method of Lorber

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with the blade of Royle in order to obtain a device that does not require installation of a separate compressed air blower to remove loose chips.

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hild (U.S. Patent 5,383,275), Noda (U.S. Patent 5,451,122), Stadtfeld (U.S. Patent 5,951,219), Lang (U.S. Patent 6,161,994), Shriver (U.S. Patent 6,289,956), Chiang (U.S. Patent 6,293,321), Magnuson (U.S. Patent 6,327,761), and Gittel (U.S. Patent Publication 2002/0037202) all teach different methods for removing chips from a workpiece.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Gates whose telephone number is 571-272-5498. The examiner can normally be reached on Monday-Thursday 7:00-4:30 & alt Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



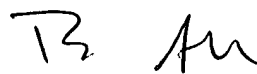
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EAG  
8 August 2005

Eric A. Gates  
Patent Examiner  
Art Unit 3722



BOYER D. ASHLEY  
PRIMARY EXAMINER